



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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NAS BRUNSWICK  
5090.3a

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December 3, 2004

Mr. Orlando Monaco  
Department of Navy  
Engineering Field Activity-Northeast  
Code 1823/OM  
10 Industrial Highway, Mailstop 82  
Lester, PA 19113-2090

Re: Addendum to Work Plan for Direct-Push Investigations at the Eastern Plume & Site 9  
(Rotosonic Drilling)  
Naval Air Station, Brunswick

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP) has reviewed the "Addendum to Work Plan for Direct-Push Investigations at the Eastern Plume & Site 9", dated November 2004, prepared by EA Engineering, Science and Technology and Environmental Chemical Corporation. Based on that review MEDEP has the following comments and issues.

**General Comment:**

The substitution of the rotosonic drilling technique for the failed direct-push effort to achieve the investigative objectives of the subject addendum (to retrieve continuous soil cores to depths as great as possible 150 feet) is acceptable, providing that a methodology for collecting up groundwater samples from three depth zones is described and/or referenced to the original workplan.

**Specific Comments:**

Section 2.1, General Description of Method, p. 1, 2<sup>nd</sup> paragraph:

"The primary benefits of this technique are the high drilling rates combined with reduced volumes of drill cuttings."

These benefits are immaterial to the technical success of this task. The important characteristics are that (a) rotosonic drilling should be able to penetrate both gravelly and cobbly soil layers so as to achieve up to 150 foot depth, and (b) it should provide for maximum possible borehole core recovery without significant disturbance of lithologic character. If the rate of advancement is not too rapid and the frequency of vibration is properly adjusted, this drilling technique should be successful. However, if the operator sets out to reach clay as quickly as possible, the data could be compromised.

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Section 2.1.1, Lithologic Samples, p. 2, item 6:

"It is important to remember that the first bag out is not going to be the top of the core."

This statement is unclear in several aspects. Please clarify what is meant by "the first bag out". Out of what? Secondly, state what this bag will represent, if not the top of the core.

Thank you for the opportunity to review this report. If you have any questions or comments please call me at (207) 287-7713 or email me at [claudia.b.sait@maine.gov](mailto:claudia.b.sait@maine.gov).

Respectfully,

A handwritten signature in cursive script, appearing to read "Claudia Sait".

Claudia Sait  
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